

thousand times the diameter of a molecule, the thickness of a γ -pulse is about equal to the diameter of a molecule.

Summary.

Part of the cathode radiation from a plate exposed to the γ -rays of radium consists of very soft rays which are absorbed in 1 or 2 cm. of air.

The softness of the radiation is practically independent of the thickness of the radiator, and previous sifting of the γ -rays through a thick screen.

The radiation appears to be considerably softer on the side of the radiating plate where the γ -rays emerge than on the side where they enter.

Measurements of the softness of the radiation for radiators of different materials on the side where the γ -rays entered showed that it is practically independent of the nature of the material of the radiator.

The soft radiation produced by the β - and γ -rays of radium together is of a more penetrating character than that produced by the γ -rays alone.

The penetrating cathode rays produced directly by the γ -rays have been shown to possess different velocities. It was found that the penetrating power of the cathode radiation from a plate decreases with the increase of absorbability of the γ -radiation which produces it.

The velocity of these secondary rays as a whole is, as a first approximation, equal to that of the β -rays of radium.

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Electrolytes and Colloids.—The Physical State of Gluten.

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